



# UNITED STATES PATENT AND TRADEMARK OFFICE

*Tw*

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/742,165

12/20/2000

G. Wyndham Hannaway

GWhA0001

9712

7590

07/26/2006

Kent A. Lembke  
Hogan & Hartson L.L.P.  
One Tabor Center  
1200 Seventeenth Street, Suite 1500  
Denver, CO 80202

EXAMINER

DOAN, DUYEN MY

ART UNIT

PAPER NUMBER

2152

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/742,165	<b>Applicant(s)</b> HANNAWAY, G. WYNDHAM	
	<b>Examiner</b> Duyen M. Doan	<b>Art Unit</b> 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-15,17-20,22,23 and 25-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-15,17-20,22-23,25-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This action is in response to the submission filed on 5/04/06. Claims 1,3-15,17-20,22-23,25-26 are presented for examination. Claims 27-30 are newly added. Claims 2,16,21,24 are cancelled.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3-6,8,11-15,17-20,22-23,25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman et al (us 2002/0129374) (hereinafter Freeman) in view of Schuster et al (us pat 6,360,271) (hereinafter Schuster).

As regarding claim 1, Freeman discloses an input interface adapted for linking to the communications network to receive a first and a second media stream, wherein the first and second media streams comprise a plurality of digital data packets being transmitted over the communications network from a first and a second media source, respectively (see Freeman pg.1-2, par 0013-0016; par 0020; pg.3, par 0048), and wherein the first and the second media streams each include a streaming video portion (see Freeman pg.1-2, par 0013-0016; par 0020; pg.3, par 0048); a first data buffer for storing the data packets of the first media stream (see Freeman pg.3, par 0027; pg.7, par.0081-0085; pg.10, par 124-126);

Art Unit: 2152

a second data buffer for storing the data packets of the second media stream see Freeman pg.3, par 0027; pg.7, par.0081-0085; pg.10, par 124-126); and a controller communicatively linked to the first and the second data buffers for selectively retrieving the data packets of the first and second media streams to form a first and a second time-adjusted stream (see Freeman pg.1-2, par 0013-0016; par 0020; pg.3, par 0048; pg.8, par 0099-0100; pg.16, par 0205-0207), wherein the controller is further configured for mixing the first and second time-adjusted streams into a composite media stream wherein the first and second time-adjusted streams are synchronized based on time (see Freeman pg.1-2, par 0013-0016; par 0020; pg.3, par 0048; pg.8, par 0099-0100; pg.16, par 0205-0207).

Freeman does not explicitly disclose the controller determines a variable transmission delay for the first and the second media streams from the first and second media sources to the input interface and performs the selective retrieving based on the determined variable transmission delays.

Schuster teaches the controller determines a variable transmission delay for plurality of media packets (see Schuster col.7, lines 14-67; col.8, lines 17-56; col.12, lines 10-67).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Schuster to the method of Freeman to determine the delay for the media packets for the purpose of establishing, providing and/or facilitating improved buffering and routing of media signals (see Schuster col.5, lines 10-13).

As regarding claim 3, Freeman-Schuster discloses wherein the streaming video portion of the first media stream is compressed based on a first compression format

Art Unit: 2152

and the second media stream is compressed based on a second compression format, the second compression format differing from the first compression format (see Freeman pg.1-2, par 0013-0016; par 0020; pg.3, par 0048; pg.8, par 0099-0100; pg.16, par 0205-0207).

As regarding claim 4, Freeman-Schuster discloses including a decoding device between the input interface and the first and second data buffers for processing compressed first and second media streams into a first decoded stream and a second decoded stream, respectively, for storage in the first data buffer and the second data buffer, wherein the first decoded stream and the second decoded stream have compatible formatting (see Freeman pg.1-2, par 0013-0016; par 0020; pg.3, par 0048; pg.8, par 0099-0100; pg.16, par 0205-0207).

As regarding claim 5, Freeman-Schuster discloses wherein the controller forms the composite media stream by combining the first and the second time-adjusted streams such that the second time-adjusted stream has a first data packet positioned at a start time adjacent a last data packet of the first time-adjusted stream positioned at an end time (see Freeman pg.3, par 0027; pg.7, par.0081-0085; pg.10, par 124-126); a second data buffer for storing the data packets of the second media stream see Freeman pg.3, par 0027; pg.7, par.0081-0085; pg.10, par 124-126).

As regarding claim 6, Freeman-Schuster discloses the controller is communicatively-linked to an external timing reference for receiving a reference time value, and wherein the controller is adapted for using the reference time value to determine the

Art Unit: 2152

start time and the end time (see Schuster, col.7, lines 14-67; col.8, lines 17-56; col.12, lines 10-67). The same motivation was utilized in claim 1 applied equally well to claim 6.

As regarding claim 8, Freeman-Schuster discloses a data parsing device in communication with the input interface configured for retrieving time data from the first and the second media streams and for transmitting the time data to the controller, wherein the controller uses the time data to determine variable transmission delays (see Schuster, col.7, lines 14-67; col.8, lines 17-56; col.12, lines 10-67). The same motivation was utilized in claim 1 applied equally well to claim 8.

As regarding claim 11, Freeman-Schuster discloses wherein the composite media stream comprises a streaming video portion having picture-in-picture or side by side portions formed with the data packets of the first and the second time-adjusted streams (see Freeman pg.12-13, par 0164-0170).

As regarding claim 12, Freeman-Schuster discloses the controller combines the first media stream and second media stream in the composite media stream such that a data packet transmitted in the first media stream from the first media source at a transmission time is matched with a corresponding data packet in the second media stream transmitted from the second media source at the transmission time (see Freeman pg.1-2, par 0013-0016; par 0020; pg.3, par 0048; pg.8, par 0099-0100; pg.16, par 0205-0207).

As regarding claim 13, Freeman-Schuster discloses the combining is performed by the controller by selecting a transmission rate for the first and the second media

Art Unit: 2152

streams to correct for the determined variable transmission delays (see Freeman pg.1-2, par 0013-0016; par 0020; pg.3, par 0048; pg.6, par 0075; pg.7 par 0085).

As regarding claim 14, Freeman-Schuster discloses an output interface for transmitting the composite media stream from the controller over the communications network and including an end-user node linked to the communications network for receiving the composite media stream (see Freeman pg.1-2, par 0013-0016; par 0020; pg.3, par 0048; pg.6, par 0075; pg.7 par 0085), wherein the end-user node comprises a synchronizer for determining a variable transmission delay between the controller (see Schuster, col.7, lines 14-67; col.8, lines 17-56; col.12, lines 10-67) and the end-user node and for performing time-based correction of the media stream to adjust for the variable transmission delay (see Schuster, col.7, lines 14-67; col.8, lines 17-56; col.12, lines 10-67). The same motivation was utilized in claim 1 applied equally well to claim 14.

As regarding claim 15, Freeman discloses an input interface linked to the communications network and configured for receiving a first and a second media stream transmitted by a first and a second media source, respectively, wherein the first media stream comprises a plurality of data packets of a video stream encoded to a first compression standard and the second media stream comprises a plurality of data packets of a video stream encoded to a second compression standard differing from the first compression standard (see Freeman pg.1-2, par 0013-0016; par 0020; pg.3, par 0048; pg.8, par 0099-0100; pg.16, par 0205-0207); a decoder for decoding the first and the second media streams into a first and a second intermediate media stream (see

Art Unit: 2152

Freeman pg.1-2, par 0013-0016; par 0020; pg.3, par 0048; pg.8, par 0099-0100; pg.16, par 0205-0207), respectively, wherein the first and second intermediate streams are compatibly formatted; a streaming media processor for mixing the first and the second intermediate-format media streams into a composite media stream encoded according to an output compression standard (see Freeman pg.1-2, par 0013-0016; par 0020; pg.3, par 0048; pg.8, par 0099-0100; pg.16, par 0205-0207);

Freeman does not explicitly disclose a controller in communication with the input interface and the streaming media processor adapted for determining a variable transmission delay for the first and the second media streams based on a transmission time for a data packet of the first media stream and a time of receipt at the input interface of the data packet and on a transmission time for a data packet of the second media stream and a time of receipt at the input interface of the data packet.

Schuster teaches the controller determines a variable transmission delay for plurality of media packets, the transmission delay calculates using the transmission time and the receiving time of the packet (see Schuster col.7, lines 14-67; col.8, lines 17-56; col.12, lines 10-67).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Schuster to the method of Freeman to determine the delay for the media packets for the purpose of establishing, providing and/or facilitating improved buffering and routing of media signals (see Schuster col.5, lines 10-13).



As regarding claims 17-19, the limitations are similar to the limitations of rejected claims 3-6,8,11-14, therefore reject for the same rationales as claims 3-6,8,11-14.

As regarding claim 20, Freeman discloses receiving a first media stream comprising a plurality of data packets from one or more video files transmitted over the communications network by a first media source (see Freeman pg.1-2, par 0013-0016; par 0020; pg.3, par 0048; pg.8, par 0099-0100; pg.16, par 0205-0207); receiving a second media stream comprising a plurality of data packets from one or more video files transmitted over the communications network by a second media source (see Freeman pg.1-2, par 0013-0016; par 0020; pg.3, par 0048; pg.8, par 0099-0100; pg.16, par 0205-0207); retrieving timing data from the first and second media stream; comparing the timing data with a reference time to determine a first and a second transmission delay value (see Freeman pg.1-2, par 0013-0016; par 0020; pg.3, par 0048; pg.8, par 0099-0100; pg.16, par 0205-0207); and creating a synchronized media stream by mixing the first and the second media streams, wherein the first and the second media streams are presented in the synchronized media stream concurrently (see Freeman pg.1-2, par 0013-0016; par 0020; pg.3, par 0048; pg.8, par 0099-0100; pg.16, par 0205-0207).

Freeman does not explicitly disclose adjusting the first and the second media streams to correct for the first and the second transmission delay values, wherein the adjusting includes matching the data packets of the first and the second media streams based on transmittal times from the first and the second media sources.

Schuster teaches the controller determines a variable transmission delay for plurality of media packets, the transmission delay calculates using the transmission time and the

Art Unit: 2152

receiving time of the packet (see Schuster col.7, lines 14-67; col.8, lines 17-56; col.12, lines 10-67).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Schuster to the method of Freeman to determine the delay for the media packets for the purpose of establishing, providing and/or facilitating improved buffering and routing of media signals (see Schuster col.5, lines 10-13).

As regarding claim 22-23, 25-26 the limitations are similar to the limitations of rejected claims 3-6,8,11-14, therefore reject for the same rationales as claims 3-6,8,11-14.

As regarding claim 27, Freeman-Schuster discloses the synchronized media stream concurrently provides two screens corresponding to each of the first and second media streams (see Freeman pg.12-13, par 0164-0170).

As regarding claim 28, Freeman-Schuster discloses the two screens are arranged as split screens (see Freeman pg.12-13, par 0164-0170).

As regarding claim 29, Freeman-Schuster discloses wherein the two screens are arranged as picture-in-picture with a first of the two screens provided within a second of the two screens (see Freeman pg.12-13, par 0164-0170).

As regarding claim 30, Freeman-Schuster discloses wherein the first media stream comprises a first live webcast and the second media stream comprises a second live webcast (see Freeman pg.12-13, par 0164-0170).

Claims 7,9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeman and Schuster as applied to claim 5 above, and further in view of Hejna Jr. (us pat 6,934,759) (hereinafter Hejna).

As regarding claim 7, Freeman and Schuster disclose the invention substantially as claimed in claim 5, but Freeman-Schuster does not disclose the controller determines a length of the first media stream, compares the length with the end time and the variable network delay, computes an edit length for the first media stream, and compresses or lengthens the first media stream to form the first time-adjusted stream, whereby the last data packet coincides with the end time.

However, Hejna teaches a controller determines a length of the first media stream, compares the length with the end time (Interval Size is the end time for a particular interval, has beginning and ending segments with respect to time, Col. 5, lines 30-40) and the variable network delay (Col. 7, lines 20-35; Col. 8, lines 35-55), and compresses or lengthens the first media stream to form the first time adjusted stream, whereby the last data packet coincides with the end time (Col. 13, lines 28-45; Col. 29, lines 20-35, wherein if the rate speed up the length of the media stream is compressed, and if the rate slows down, the length of the media stream lengthens, last data packet is the end of the segment, i.e. the end time).

It would have been obvious to the person of ordinary skill in the art at the time of the invention to combine teachings of Freeman-Schuster and Hejna, because controller determines a length of the first media stream, compares the length with the end time and the variable network delay, computes an edit length for the first media stream, and compress or

Art Unit: 2152

lengthens the first media stream to form the first time-adjusted stream, whereby the last data packet coincides with the end time as taught by Hejna would enhance the capabilities of Freeman-Schuster by adjusting the media stream for providing substantially continuous playback of streaming media such as audio visual works received from sources having non-deterministic delays such as a file server over the Internet.

As per claim 9, Freeman-Schuster does not explicitly teach the controller is adapted to create media server control signals based on the determined variable transmission delays and to transmit the signals over the communications network to the first and the second media sources to control transmission variables of the first and second media streams.

However, in a similar system, Hejna teaches the controller is adapted to create media server control signals over the communications network to the first and the second media sources to control transmission variables of the first and second media streams (Col. 9, lines 35-40, lines 50-55; Col. 10, lines 30-45, server receives control information to re-send data to particular clients).

It would have been obvious to the person of ordinary skill in the art at the time of the invention to combine teachings of Freeman-Schuster and Hejna, because controller is adapted to create media server control signals based on the determined variable transmission delays and to transmit the signals over the communications network to the first and the second media sources to control transmission variables of the first and second media streams as taught by Hejna would enhance the capabilities of Freeman-Schuster by adjusting the media stream for providing substantially continuous playback of streaming

Art Unit: 2152

media such as audio visual works received from sources having non-deterministic delays such as a file server over the Internet.

As per claim 10, Freeman-Schuster does not explicitly teach the transmission variables are selected from the group consisting of transmission timing, transmission rate, and transmission length.

However, Hejna teaches the transmission variables are selected from the group consisting of transmission timing (Col. 10, lines 34-45), transmission rate (Col. 5, lines 30-40), and transmission length (Col. 5, lines 30-40).

It would have been obvious to the person of ordinary skill in the art at the time of the invention to combine teachings of Freeman-Schuster and Hejna, because transmission variables are selected from the group consisting of transmission timing, transmission rate, and transmission length as taught by Hejna would enhance the capabilities of Freeman-Schuster by adjusting the media stream for providing substantially continuous playback of streaming media such as audio visual works received from sources having non-deterministic delays such as a file server over the Internet.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1,3-15,17-20,22-23,25-30 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

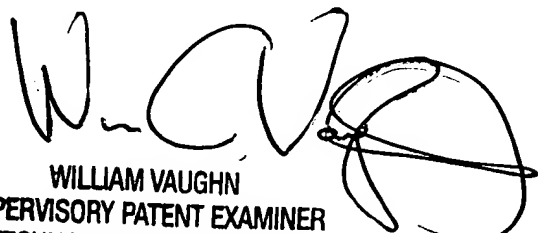
Art Unit: 2152

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duyen M. Doan whose telephone number is (571) 272-4226. The examiner can normally be reached on 9:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob A. Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner  
Duyen Doan  
Art unit 2152

  
WILLIAM VAUGHN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100